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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,483	03/25/2004	Hironori Osuga	033036M073	5757
441 7590 08/24/2007 SMITH, GAMBRELL & RUSSELL 1850 M STREET, N.W., SUITE 800 WASHINGTON, DC 20036			EXAMINER SELLERS, ROBERT E	
			ART UNIT 1712	PAPER NUMBER
			MAIL DATE 08/24/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<p align="center"><b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b></p>	<b>Application No.</b> 10/808,483	<b>Applicant(s)</b> OSUGA, HIRONORI	
	<b>Examiner</b> Robert Sellers	<b>Art Unit</b> 1712	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 14 August 2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☐ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.  
 b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
 (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
 (b) ☐ They raise the issue of new matter (see NOTE below);  
 (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
 (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
 5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
 6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
 7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
 The status of the claim(s) is (or will be) as follows:  
 Claim(s) allowed: \_\_\_\_\_.  
 Claim(s) objected to: \_\_\_\_\_.  
 Claim(s) rejected: \_\_\_\_\_.  
 Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
 9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
 10. ☒ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See the attachment.  
 12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_.  
 13. ☐ Other: \_\_\_\_\_.

Robert Sellers  
Primary Examiner  
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1. The claimed silicone compound (D) embraces a silicone oil and polyorganosiloxanes (page 7, lines 19-21 of the specification which could also cause the ultrafine silica to not act as proper ultrafine silica just as the silicone oil stress-reducing agent (C), hydrophobic organopolysiloxane (D-i) and hydrophilic polyoxyalkylene-modified silicone oil (D-ii) of Ichiroku et al. Patent No. 6,506,822 (col. 2, lines 22-61 and col. 5, lines 4-5).
2. Ichiroku et al. discloses from 0.1 to 20 parts by weight of finely divided silica having a specific surface area of at least  $100 \text{ m}^2/\text{g}$  (col. 2, lines 36-38) and shows fused silica SE15 (col. 14, Examples 1-10, lines 30-31) and RD 8 (col. 15, Example 11, lines 58-59) without identifying the specific surface areas.
3. The comparison between Examples 2 and 4 in Table 1 on page 15 of the specification using ultrafine silica having particle sizes of 180 and  $240 \text{ m}^2/\text{g}$ , respectively, representative of the claims and Comparative Examples 3 and 4 with ultrafine silica having particle sizes of 100 and  $340 \text{ m}^2/\text{g}$ , respectively, exhibit the same or comparable results in thermal conductivity, warpage of package and temperature cycle property at 500 and 1000 cycles. Comparative Example 4 shows a lower spiral flow and Comparative Example 3 exhibits a higher length of flash. However, the evidence is not commensurate in scope with the claims. Examples at 180 and  $240 \text{ m}^2/\text{g}$  do not establish the criticality of the claimed broader range of from 120 to  $280 \text{ m}^2/\text{g}$ , especially considering the decreasing trend in spiral flow as the specific surface area increases from 130 cm at 100 and  $180 \text{ m}^2/\text{g}$  to 120 cm at  $240 \text{ m}^2/\text{g}$  to 70 cm at  $340 \text{ m}^2/\text{g}$ , thus calling into question the value at the claimed upper limit of  $280 \text{ m}^2/\text{g}$ .

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4. The declaration filed August 14, 2007 attempts to confirm the criticality of the claimed proportion range of spherical alumina of from 85% to 92% by weight.

The testing of a single amount of 90.0% by weight does not confer patentability to the claimed range when considering that as the level of spherical alumina increases, the spiral flow decreases, the length of flash decreases, and the temperature of cycle properties decrease. Therefore, the data demonstrate trends which raises the issue of whether the claimed limits of 85% and 92% by weight would exhibit unexpected results within acceptable values.

5. Any properties addressing the thermal expansion such as warpage of package and heat conduction such as thermal conductivity with respect to the quantity of spherical alumina are already recognized in Shintai et al. Patent No. 5,362,775 (col. 11, lines 22-24) and are therefore not unexpected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Sellers whose telephone number is (571) 272-1093. The examiner can normally be reached on Monday to Friday from 9:30 to 6:00. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).

/Robert Sellers/

Robert Sellers  
Primary Examiner  
Art Unit 1712

rs 8/23/2007